Performance Data Sheet

AE4430Y-AA1A

General Information

Model	AE4430Y-AA1A	**Refrigerant**	R-134a
Test Condition	ASHRAE	**Performance Test Voltage**	115V ~ 60HZ
Return Gas	4.4°C (40°F) RETURN GAS	**Motor Type**	CSIR

Performance Information

Evap Temp (°F)		Condensing Temperature (°F)						
		80	**90**	**100**	**110**	**120**	**130**	**140**
5	Btu/h	1720	1500	1340	1230	1130	1000	827
	Watts	234	245	255	264	271	274	272
	Amps	4.03	3.96	3.94	3.95	3.97	3.95	3.89
	Lb/h	24.7	21.9	20.5	19.8	19.4	18.4	16.2
10	Btu/h	1950	1710	1540	1420	1300	1170	984
	Watts	246	256	268	279	287	293	294
	Amps	4.07	4.00	3.99	4.00	4.03	4.02	3.97
	Lb/h	27.8	24.9	23.5	22.9	22.5	21.5	19.3
15	Btu/h	2210	1950	1770	1630	1500	1350	1150
	Watts	259	270	283	295	305	313	317
	Amps	4.14	4.07	4.07	4.10	4.13	4.14	4.11
	Lb/h	31.5	28.6	27.1	26.4	25.9	24.9	22.7
20	Btu/h	2510	2230	2020	1870	1720	1550	1330
	Watts	274	285	298	311	323	333	340
	Amps	4.21	4.15	4.16	4.20	4.25	4.29	4.28
	Lb/h	35.7	32.7	31.1	30.3	29.7	28.6	26.3
25	Btu/h	2840	2530	2310	2120	1950	1760	1510
	Watts	288	299	313	326	340	352	360
	Amps	4.26	4.21	4.24	4.30	4.37	4.43	4.45
	Lb/h	40.5	37.3	35.6	34.6	33.8	32.6	30.2
30	Btu/h	3200	2870	2610	2390	2190	1970	1700
	Watts	300	311	325	339	354	367	378
	Amps	4.25	4.22	4.27	4.35	4.45	4.54	4.59
	Lb/h	45.9	42.4	40.4	39.3	38.3	36.8	34.2
35	Btu/h	3590	3220	2930	2680	2440	2190	1880
	Watts	309	320	333	348	363	378	390
	Amps	4.17	4.16	4.23	4.35	4.48	4.60	4.68
	Lb/h	51.8	48.0	45.7	44.3	43.0	41.3	38.4
40	Btu/h	4010	3590	3260	2970	2700	2410	2070
	Watts	314	323	336	351	367	383	397
	Amps	3.98	4.00	4.10	4.25	4.41	4.57	4.70
	Lb/h	58.2	54.1	51.4	49.7	48.1	46.0	42.8

45	Btu/h	4440	3980	3610	3270	2960	2620	2240
	Watts	311	320	332	347	363	380	396
	Amps	3.66	3.72	3.85	4.03	4.24	4.44	4.61
	Lb/h	65.0	60.5	57.5	55.3	53.4	50.9	47.3
50	Btu/h	4890	4390	3960	3580	3210	2830	2400
	Watts	302	309	320	335	351	368	385
	Amps	3.19	3.28	3.45	3.67	3.92	4.17	4.39
	Lb/h	72.4	67.4	63.9	61.3	58.9	56.0	52.0
55	Btu/h	5360	4800	4320	3880	3460	3030	2550
	Watts	283	288	298	312	329	347	364
	Amps	2.53	2.66	2.88	3.15	3.45	3.75	4.02
	Lb/h	80.2	74.7	70.7	67.6	64.7	61.3	56.8
60	Btu/h	5840	5210	4670	4180	3710	3220	2680
	Watts	253	257	266	279	295	313	331
	Amps	1.67	1.84	2.10	2.42	2.78	3.13	3.47
	Lb/h	88.4	82.4	77.8	74.1	70.7	66.7	61.7

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	9.720597E+03	2.787547E+02	9.727442E+00	1.759980E+02
C2	4.364565E+01	2.978153E+00	2.077653E-02	3.549930E-01
C3	-2.113530E+02	-3.521181E+00	-1.608875E-01	-4.157640E+00
C4	1.686502E+00	1.454287E-01	8.860667E-04	2.154985E-02
C5	-2.044484E-01	-6.421290E-02	-5.991895E-04	4.903652E-04
C6	1.786068E+00	5.214080E-02	1.484566E-03	3.667781E-02
C7	-4.392345E-03	-1.938351E-03	-3.502113E-05	-2.260595E-05
C8	-9.359608E-03	-4.753286E-04	8.914596E-06	-1.127825E-04
C9	5.830457E-04	4.883689E-04	2.764105E-06	6.012262E-06
C10	-5.266693E-03	-2.024314E-04	-4.525316E-06	-1.091260E-04

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature

Performance Data Sheet

AE4430Y-AA1A

General Information

Model	AE4430Y-AA1A	**Refrigerant**	R-134a
Test Condition	ASHRAE	**Performance Test Voltage**	115V ~ 60HZ
Return Gas	18.3°C (65°F) RETURN GAS	**Motor Type**	CSIR

Performance Information

Evap Temp (°F)		Condensing Temperature (°F)						
		80	**90**	**100**	**110**	**120**	**130**	**140**
5	Btu/h	1500	1560	1530	1420	1290	1160	1060
	Watts	242	248	255	263	270	276	280
	Amps	3.93	3.94	3.97	4.00	4.04	4.06	4.07
	Lb/h	17.5	19.5	20.1	19.6	18.7	17.7	17.2
10	Btu/h	1740	1810	1770	1660	1510	1370	1260
	Watts	254	261	269	278	287	294	300
	Amps	3.99	4.00	4.03	4.07	4.11	4.15	4.17
	Lb/h	20.4	22.7	23.3	22.9	22.0	21.0	20.4
15	Btu/h	2000	2070	2020	1900	1750	1590	1460
	Watts	265	273	283	293	303	312	320
	Amps	4.04	4.06	4.09	4.14	4.19	4.24	4.28
	Lb/h	23.6	26.0	26.8	26.4	25.5	24.4	23.7
20	Btu/h	2280	2350	2300	2170	2000	1820	1670
	Watts	276	285	295	307	319	330	340
	Amps	4.10	4.11	4.15	4.21	4.27	4.34	4.39
	Lb/h	27.0	29.6	30.5	30.2	29.2	28.1	27.3
25	Btu/h	2590	2650	2600	2460	2270	2070	1900
	Watts	286	296	308	321	335	348	360
	Amps	4.15	4.17	4.21	4.28	4.36	4.43	4.51
	Lb/h	30.8	33.5	34.5	34.3	33.3	32.1	31.1
30	Btu/h	2940	2990	2920	2770	2560	2350	2150
	Watts	295	306	320	335	350	365	379
	Amps	4.20	4.22	4.28	4.35	4.44	4.54	4.63
	Lb/h	35.0	37.8	38.9	38.7	37.7	36.4	35.3
35	Btu/h	3310	3350	3270	3100	2880	2640	2420
	Watts	303	316	331	348	365	383	399
	Amps	4.24	4.27	4.34	4.42	4.53	4.64	4.75
	Lb/h	39.6	42.6	43.8	43.6	42.5	41.2	39.9
40	Btu/h	3720	3750	3660	3470	3230	2960	2710
	Watts	310	325	342	361	380	400	419
	Amps	4.29	4.32	4.40	4.50	4.62	4.75	4.88
	Lb/h	44.7	47.9	49.1	49.0	47.9	46.4	45.0

45	Btu/h	4170	4190	4080	3870	3600	3310	3020
	Watts	317	334	352	373	395	417	438
	Amps	4.33	4.37	4.46	4.57	4.71	4.86	5.01
	Lb/h	50.4	53.7	55.0	54.9	53.7	52.2	50.6
50	Btu/h	4660	4660	4530	4310	4010	3690	3370
	Watts	323	341	362	385	409	434	457
	Amps	4.36	4.42	4.51	4.64	4.80	4.97	5.15
	Lb/h	56.7	60.1	61.5	61.4	60.2	58.5	56.8
55	Btu/h	5190	5180	5030	4780	4460	4100	3750
	Watts	329	349	372	397	423	450	477
	Amps	4.40	4.46	4.57	4.72	4.89	5.08	5.29
	Lb/h	63.7	67.2	68.7	68.6	67.3	65.5	63.6
60	Btu/h	5770	5750	5580	5300	4950	4560	4170
	Watts	333	355	381	408	437	467	496
	Amps	4.43	4.50	4.63	4.79	4.98	5.20	5.43
	Lb/h	71.4	75.1	76.6	76.4	75.2	73.2	71.2

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-6.987532E+03	3.353125E+02	5.191012E+00	-1.130763E+02
C2	7.939755E+00	2.539822E+00	3.514291E-02	-1.806368E-01
C3	2.323385E+02	-3.955328E+00	-4.194573E-02	3.456561E+00
C4	6.145737E-01	-3.114899E-02	-2.190373E-04	3.230602E-03
C5	7.379179E-01	-1.279652E-02	-5.141699E-04	1.368965E-02
C6	-2.084942E+00	4.433492E-02	4.246519E-04	-2.996647E-02
C7	4.088823E-03	-6.318650E-06	-2.292465E-07	7.672337E-05
C8	-4.067325E-03	2.166259E-04	2.301604E-06	-1.389786E-05
C9	-3.767105E-03	1.659055E-04	2.844310E-06	-5.816999E-05
C10	5.903930E-03	-1.422352E-04	-1.336463E-06	8.408253E-05

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature